AMENDMENTS TO THE SPECIFICATION

At page 11, line 6, please amend the section heading as follows:

—**BRIEF DESCRIPTION OF THE ~~DRAWING~~DRAWINGS**—

Please amend the paragraph starting at page 36, line 5 thru page 37, line 2, as follows:

—A third embodiment of the invention is an antenna that consists of any number of similarly shaped elements arranged so as to provide high directivity. The element consists of two similarly shaped sub-elements that are modified versions of the elements disclosed hereinabove. Referring back to **FIG 6**, at the operating frequency the spacing **S** between segments **102** and **108** is such that the two tuned circuits are over-coupled. That is, their coupling coefficient is greater than the critical value. It is known from the prior art of over-coupled tuned circuits that the two coupled circuits have two resonant frequencies, one above and the other below the natural resonant frequency of each identical tuned circuit. The spacing of the two resonances from the natural resonant frequency increases as the coupling between the two circuits increases. It is also known from the prior art that, at the lower resonant frequency, f_1, the currents in segments **102** and ~~**105**~~ **108** in **FIG 6** are almost equal in amplitude and almost equal in phase. Also, at the upper resonant frequency, f_2, the currents in **102** and **108**~~**105**~~ in **FIG 6** are almost equal in amplitude but opposite in phase. The close spacing **S** of the two sub-elements is such that from a radiation pattern standpoint at f_1, segments **102** and **108**~~**105**~~ in **FIG 6** can be considered to be co-sited. That is, the radiation pattern produced by the two currents in the conductors is indistinguishable from that of the vector sum of the two currents flowing in a single wire occupying their mean position. The resultant radiation pattern and directivity generated by these currents is very close to that of a short dipole having a constant current over

its length. The directivity relative to an isotropic radiator is approximately 1.8 dBi, as compared to the directivity of a half-wave dipole of 2.14 dBi.—

Please amend the paragraph starting at page 38, line 18 thru page 40, line 3, as follows:

—It has been found that it is possible to optimize the antenna shown in **FIG 25** for operation at either f_1 and f_3, or at f_2 and f_3. **FIG 25** has been discussed previously in the context of operation at f_1 and f_3, where the polarization at f_1 is at right angles to the polarization at f_3. For many applications it is desirable to have the same polarization at two frequencies where f_3 is close to three times f_2, and this may be achieved as follows. It has been shown that the coupling coefficient between the two sub-elements controls the frequency f_2 at which the radiation field is polarized in the same direction as at f_3. By reducing the coupling between the two sub-elements, f_2 can be adjusted to be approximately one third of f_3 or close thereto, and at the same time provide similar radiation resistance at both frequencies. Practically there are two methods to reduce the coupling between the sub-elements. Referring again to **FIG 6**, in the first method the segments **102** and ~~**105**~~ **108** are reduced in length to less than $\frac{\lambda}{2}$ at f_3 and the segments **103, 104, 106** and **107** are increased in length to greater than $\frac{\lambda}{2}$. The reduction in length of segments **102** and ~~**105**~~ **108** reduces the coupling coefficient between the two sub-elements such that f_2 is reduced, and the increase in length of segments **103, 104, 106** and **107** maintains f_3 at the desired frequency. This method also increases the effective stacking distance between the segments **103** and **106**, and the segments **104** and **107** in the x direction, resulting in higher directivity, although this is offset by the reduction in stacking distance in the y dimension. In the second method, the closely parallel segments **102** and ~~**105**~~

108 are angled away from each other as shown by segments **342** and **345** in **FIG 33**, which illustrates the fourth embodiment of the present invention. By suitably adjusting the angle between the segments **342** and **345** the coupling between the sub-elements may be reduced such that f_2 is reduced as in the first method. This second method also increases the stacking distance between segments **343** and **346** and segments **344** and **347** in the x direction, with a smaller reduction in the stacking distance in the y direction, and thus results in higher directivity than the first method. For clarification, **FIG 34** shows a view of the element depicted in **FIG 33** along the y axis. A slightly modified version of the element is shown in **FIG 35**, where the centers of the sub-elements **352** and **355** are parallel for a short distance in order to facilitate mounting to a support boom, **358**.—